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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/527,039	03/09/2005	Philippe Desbois	12810-00038-US	5549

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CONNOLLY BOVE LODGE & HUTZ LLP
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WASHINGTON, DC 20036

EXAMINER

NUTTER, NATHAN M

ART UNIT	PAPER NUMBER
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1711

MAIL DATE	DELIVERY MODE
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09/10/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/527,039	Applicant(s) DESBOIS ET AL.	
	Examiner Nathan M. Nutter	Art Unit 1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>03-05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 14-21 are pending.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 14-17 and 19-21 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-9 of U.S. Patent No.

6,506,846 (Schade et al), cited by applicants. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the patent recite a process for producing the anionically polymerized polystyrene in the presence of a rubber, which may be a styrene-butadiene block copolymer, using an organyl alkali metal compound and an organyl aluminum compound, as recited herein. While the reference does not specifically teach the melt volume flow, as herein recited,

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nothing is recited that distinguishes from the disclosure of the reference. A skilled artisan would expect to produce such. Further, the manipulation thereof for advantages or benefits derived therefrom would have been within the skill of a practitioner, and would have been within the teachings of the reference.

Claims 14-17 and 19-21 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-12 of U.S. Patent No. 6,444,767 (Schade et al), newly cited. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the patent recite a process for producing the anionically polymerized polystyrene in the presence of a rubber, which may be a styrene-butadiene block copolymer, using an organyl alkali metal compound and an organyl aluminum compound, as recited herein. While the reference does not specifically teach the melt volume flow, as herein recited, nothing is recited that distinguishes from the disclosure of the reference. A skilled artisan would expect to produce such. Further, the manipulation thereof for advantages or benefits derived therefrom would have been within the skill of a practitioner, and would have been within the purview of the reference.

Claims 14-17 and 19-21 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-12 of U.S. Patent No. 6,410,654 (Desbois et al), newly cited. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the patent recite

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a process for producing the anionically polymerized polystyrene in the presence of a rubber, which may be a styrene-butadiene block copolymer, using an organyl alkali metal compound and an organyl aluminum compound, as recited herein. The process of the claims is relied upon in claims 1-9 and directly in claims 10-12. While the reference does not specifically teach the melt volume flow, as herein recited, nothing is recited that distinguishes from the disclosure of the reference. A skilled artisan would expect to produce such. Further, the manipulation thereof for advantages or benefits derived therefrom would have been within the skill of a practitioner, and would have been within the purview of the reference.

Claims 14-17 and 19-21 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-12 of U.S. Patent No. 6,350,834 (Schade et al), newly cited. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the patent recite a process for producing the anionically polymerized polystyrene in the presence of a rubber, which may be a styrene-butadiene block copolymer, using an organyl alkali metal compound and an organyl aluminum compound, as recited herein. While the reference does not specifically teach the melt volume flow, as herein recited, nothing is recited that distinguishes from the disclosure of the reference. A skilled artisan would expect to produce such. Further, the manipulation thereof for advantages or benefits derived therefrom would have been within the skill of a practitioner, and would have been within the teachings of the patent.

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Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 14-17 and 19-21 are rejected under 35 U.S.C. 103(a) as being obvious over Schade et al (US 6,506,846).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(I)(1) and § 706.02(I)(2).

The reference teaches a process for producing anionically polymerized polystyrene in the presence of a rubber, which may be a styrene-butadiene block copolymer, using an organyl alkali metal compound, that may be sec-butyllithium and an organyl aluminum compound, as recited herein. The use of styrene monomer and the block copolymer is shown at column 3 (lines 7-10 and 28-33). Note the paragraph bridging column 2 to column 3 for the use of sec-butyllithium and column 2 (lines 42-59) for the employment of triisobutylaluminum (TIBA). Further, note Examples 9, 10, 11 and 12. While the reference does not specifically teach the melt volume flow, as herein recited, nothing is recited that distinguishes from the disclosure of the reference. A skilled artisan would have a high expectation of success to produce such. Further, the manipulation thereof for advantages or benefits derived therefrom would have been within the skill of a practitioner, and would have been within the teachings of the reference.

Claims 14-17 and 19-21 are rejected under 35 U.S.C. 103(a) as being obvious over Schade et al (US 6,444,767).

The applied reference has a common assignee and a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed

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subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(I)(1) and § 706.02(I)(2).

The reference shows a process for producing anionically polymerized polystyrene in the presence of a rubber, which may be a styrene-butadiene block copolymer, using an organyl alkali metal compound, that may be sec-butyllithium and an organyl aluminum compound, as recited herein. The use of styrene monomer is shown at the paragraph bridging column 3 to column 4 and the block copolymer is shown at column 4 (lines 34-40). Note the paragraph bridging column 2 to column 3 for the use of sec-butyllithium and column 3 (lines 11-27) for the employment of triisobutylaluminum (TIBA). Further, note the many Examples. While the reference does not specifically teach the melt volume flow, as herein recited, nothing is recited that distinguishes from the disclosure of the reference. A skilled artisan would have a high expectation of success to produce such. Further, the manipulation thereof for advantages or benefits derived therefrom would have been within the skill of a practitioner, and would have been within the teachings of the reference.

Claims 1-17 and 19-21 are rejected under 35 U.S.C. 103(a) as being obvious over Desbois et al (US 6,410,654).

The applied reference has a common assignee and a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(I)(1) and § 706.02(I)(2).

The patent shows a process for producing anionically polymerized polystyrene in the presence of a rubber, which may be a styrene-butadiene block copolymer, using an organyl alkali metal compound, that may be sec-butyllithium and an organyl aluminum compound, as recited herein. The use of styrene monomer and the block copolymer is shown at column 2 (lines 14 et seq.). Note column 2 (lines 55-65) for the use of sec-butyllithium and column 3 (lines 34-50) for the employment of triisobutylaluminum

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(TIBA). Further, note the many Examples. While the reference does not specifically teach the melt volume flow, as herein recited, nothing is recited that distinguishes from the disclosure of the reference. A skilled artisan would have a high expectation of success to produce such. Further, the manipulation thereof for advantages or benefits derived therefrom would have been within the skill of a practitioner, and would have been within the teachings of the patent.

Claims 14-17 and 19-21 are rejected under 35 U.S.C. 103(a) as being obvious over Schade et al (US 6,350,834).

The applied reference has a common assignee and a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing

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that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(I)(1) and § 706.02(I)(2).

The reference teaches a method for producing anionically polymerized polystyrene in the presence of a rubber, which may be a styrene-butadiene block copolymer, using an organyl alkali metal compound, that may be sec-butyllithium and an organyl aluminum compound, as recited herein. The styrene monomer is shown at column 5 (lines 19-29). The styrene-butadiene block copolymer is shown at column 5 (lines 55-62). Note column 2 (lines 42-57) for the use of sec-butyllithium and column 3 (lines 30 et seq.) for the employment of triisobutylaluminum (TIBA). Further, note the many Examples. While the reference does not specifically teach the melt volume flow, as herein recited, nothing is recited that distinguishes from the disclosure of the reference. A skilled artisan would have a high expectation of success to produce such. Further, the manipulation thereof for advantages or benefits derived therefrom would have been within the skill of a practitioner, and would have been within the teachings of the patent.

Claims 14-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schade et al (US 6,444,767) or Schade et al (US 6,350,834), as applied to claims 14-17 and 19-21 above, and further in view of Slama (US 4,245,057), and in view of Willis et al (US 6,492,469), both newly cited.

Each of Schade et al (US 6,444,767) and Schade et al (US 6,350,834) teaches essentially the identical process as herein recited, as set out above. The references

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each show the use thereof in the preparation of high impact polystyrene compositions.

Note in Schade et al ('767) at column 4 (lines 34-40), and in Schade et al ('834) at column 5 (lines 55-62).

The reference to Slama shows the conventionality of blending styrene polymer with a rubber-modified styrene polymer in amounts that overlap with those recited in claim 18. Note column 3 (lines 13-24).

The patent to Willis et al is relied upon to show the conventionality of the order of addition of constituents. Note column 7 (lines 27-30) wherein the TIBA is added during the anionic polymerization of styrene. This step, it is submitted, would be conventional common sense since the polymerization retarder, TIBA, would not be added with the initiator.

As such, the subsequent employment of the rubber-modified styrene resin in the production of high impact polystyrene compositions, as recited in claim 18, would have been an obvious modification in view of the teachings of the reference. Further, the order of addition of constituents is deemed to be obvious based on the suggestion of Willis et al and in view of conventional knowledge.

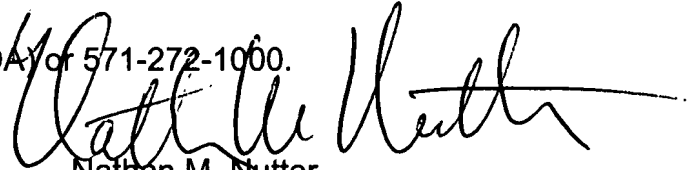
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan M. Nutter whose telephone number is 571-272-1076. The examiner can normally be reached on 9:30 a.m.-6:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James J. Seidleck can be reached on 571-272-1078. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'Nathan M. Nutter', is written over the printed name and title.

Nathan M. Nutter
Primary Examiner
Art Unit 1711

nmn

4 September 2007